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mostly clustered in the center of the spots, epiphyllous, 120—130  $\mu$  in diameter; sporules brownish, filiform, nearly straight, continuous, 12—20  $\times$  1  $\mu$ . On leaves of *Cephalanthus occidentalis*. Kansas.

25. SEPTORIA CERASTII, Rob. & Desm. Sylloge III, p. 518; N. A. F., No. 1139.

Spots pallid, large; perithecia brown, subglobose, erumpent, amphigenous, numerous, 135—140  $\mu$  in diameter; sporules hyaline, filiform, one end a little enlarged, entire, 35—40  $\times$  1  $\mu$ . On *Cerastium viscosum*, *C. vulgatum* and *C. oblongifolium*. Kentucky.

26. SEPTORIA CERASINA, Pk. 29th Rep. N. Y. S. Mus., p. 48; Sylloge III, p. 489; Ellis, N. A. F., No. 1609.

Spots red-brown, turning light brown or pallid in the center, often confluent, subangular, 1—3 millim. in diameter; perithecia obsolete; acervuli flattened, subepidermal, mostly hypophyllous, 300—400  $\mu$  in diameter; sporules subhyaline, cylindrical or subfusiform, ends subacute, one or more septate, curved, 40—60  $\times$  2½  $\mu$ , exuded in light amber-colored masses, or white at first. On leaves of *Prunus domestica* and *P. serotina* New York. This probably should be transferred to *Phleospora*.

27. SEPTORIA CEUTHOSPOROIDES (Cke. and Hark.) *Cryptosporium ceuthosporoides*, Cke. & Hamess. Grev IX, p. 127; Sylloge III, p. 490.

“Perithecia flat, brown, entire, thin, fissured above; sporules hyaline, fusiform, curved, 18—20  $\times$  3  $\mu$ .” On dead leaves of *Eucalyptus*. California.

(To be continued.)

## NEW SPECIES OF FUNGI.

BY J. B. ELLIS AND B. M. EVERHART.

ASTERINA INQUINANS, E. & E.—On dead leaves of *Sabal Palmetto*, Louisiana, July, 1886. Rev. A. B. Langlois. Perithecia scutelliform, black, umbonate, of radiate-cellular structure, the marginal cells subelongated and slightly enlarged at their extremities; asci ovate or obovate, contracted at the base into a short stipe, 35—40  $\times$  18—22  $\mu$ ; sporidia irregularly crowded, ovate-elliptical or oblong-elliptical, yellowish and faintly uniseptate(?). The perithecia are thickly scattered over both surfaces of the leaf and look much like masses of exuded spores of some *Pestalozzia* or *Melanconium*.

PHYLLACHORA OXALINA, E. & E.—On living leaves of *Oxalis corniculata*, Falkland, Del., August, 1885. A. Commons, No. 117. Gregarious, tuberculiform, minute (¼ millim.); stylospores oblong-fusoid, hyaline, 2-nucleate, then 1-septate, 7—8  $\times$  2—3  $\mu$ . The part of the leaf occupied by the fungus turns brown and dries up.

*VALSA MAGNISPORA*, E. & E. —On dead maple limbs, Plainfield, N. J. G. F. Meschutt, July, 1886. Perithecia buried in the inner bark, not penetrating to the wood nor circumscribed by any black line, 6—10 in a cluster, globose-ovate, about one fourth millim. in diam., contracted above into short necks which burst in a cluster through the epidermis but project only slightly above it, their apices (ostiola) hemispherical, black, smooth and shining, with a minute central pore and sometimes lightly umbilicate; asci subsessile, oblong-cylindrical, 100—120 x 18—22  $\mu$ ; sporidia biseriate, oblong-fusoid, hyaline, 1-septate, slightly curved, 25—35 x 9—11  $\mu$ . We have not seen a specimen of *Diaporthe Aceris*, Fckl., but that is said to have asci only 60 x 8  $\mu$  and sporidia 14 x 4  $\mu$  and can hardly be the same as this.

*MELANCONIS DECORAENSIS*, Ell., var. *major*. —On dead birch limbs Plainfield, N. J. (G. F. Meschutt). Has the sporidia longer (18—26 x 8—10  $\mu$ ) and mostly biseriate, but does not differ otherwise from the original specimens from Iowa. When well matured, the ostiola in both are distinctly quadrisulcate.

*DIATRYPELLA HERBACEA*, E. & E. —On dead herbaceous stems (*Ambrosia trifida*?) September, 1886. Langlois, No. 505. Stroma tuberculiform, 1—2 millim. in diam., white inside, tinged with yellow above but black externally; perithecia ovate-globose, about one third millim. in diam., rather abruptly contracted above into a short, narrow neck, expanded at the surface of the stroma with a broad, obtuse, quadrisulcate ostiolum; asci including the slender base, 100—120 x 10—12  $\mu$ ; paraphyses soon disappearing; sporidia crowded in the upper half of the asci, numerous pale yellowish, cylindrical, curved, 7—8 x 1—1½  $\mu$ . On the same stems was a form of *Calosphaeria microtheca*, C. & E., with scattered or subseriate beaked perithecia, having fasciculate asci about 20 x 3½—4  $\mu$ , truncate above and sporidia 3½—4½ x ¾  $\mu$ .

*DIATRYPELLA RAMULARIS*, E. & E. —On dead branches *Lonicera Japonica*, Pointe à la Hache, La., December, 1886. Langlois, No. 861. Stroma tuberculiform, 1—2 millim. in diam., bursting out through longitudinal cracks in the bark, penetrating to the wood, which is marked with a black, circumscribing line, subtruncate above, dirty white within; perithecia 4—12 in each stroma, globose, with a short neck, walls thick and coriaceous; ostiola only slightly prominent, flat, 4—5-stellate-cleft, finally broadly preforated; asci broad, clavate, 90—110 x 12—15  $\mu$ ; sporidia many, allantoid, yellowish, moderately curved, 6—10 x 1½  $\mu$ .

*DIATRYPE SPHÆROSOMA*, E. & E. —On dead shoots of *Magnolia glauca*, Newfield, N. J., June, 1878. Stroma formed of the scarcely altered substance of the bark, erumpent but not very prominent, surrounded by the ruptured epidermis, small (¾—1 millim.); perithecia in a single layer, 3—12, black, membranaceous, minute (one sixth to one fifth millim.), their smooth, black, obtusely conic ostiola dotting the surface of the stroma; asci cylindrical, spore-bearing part 30—35 x 3  $\mu$ , with a slender thread-like base about 20  $\mu$  long; paraphyses not observed;

sporidia uniseriate, yellowish-hyaline, eight in an ascus, globose, three  $\mu$  in diam. Outwardly, this is scarcely distinguishable from *D. minima*, E. & E. (JOURN. MYCOL., I, 91), but the marked difference in the sporidia seem to entitle it to specific rank. The stroma in some of the specimens is limited by a black line as in *D. maxima*, but in others not.

*EUTYPA ECHINATA*, E. & E.—On dead branches of *Fraxinus*, Plaquemines, Co., La., December, 1886. Langlois, No. 952. Stroma surrounding the branches and extending along them for many inches, continuous or interrupted, penetrating (but not discoloring) the wood for about one millimeter and bounded by a thin black layer which, in a transverse section, appears as a black line. The epidermis is not discolored, but when this has disappeared, the exposed surface of the inner bark is seen to be thickly covered with snuff-brown, punctiform tufts of hyphæ about 25 or 30  $\mu$  high, of a pale brown color and much resembling the tufted hyphæ of some *Cercospora*, but, from the specimens seen, we have not been able to make out the conidia; perithecia globose,  $\frac{1}{3}$ — $\frac{1}{2}$  millim. in diam., with thick, coriaceous walls and, when mature and empty, black and shining inside, buried in the lower stratum of the inner bark and penetrating the wood more or less—sometimes entirely buried in it; ostioli cylindrical, rough, projecting about one millim., their apices rounded, smooth and black and pierced with a small, round aperture; asci clavate, 12—15 x 4  $\mu$  (spore-bearing part), with a slender, filiform base of about the same length and without paraphyses; sporidia allantoid, subhyaline, 2-nucleate, curved, eight in an ascus, about 4 x  $\frac{3}{4}$ —1  $\mu$ .

*ANTHOSTOMA SAPROPHILUM*, E. & E.—On rotten maple wood, Newfield, N. J., May, 1876. Stroma effused, blacking the surface of the wood but not discoloring it inside, but limited by a black circumscribing line, forming black, subelongated, subconfluent, indefinitely-limited spots  $\frac{1}{2}$ —1 cm. or more in extent; perithecia membranaceous, globose ( $\frac{1}{3}$ — $\frac{1}{2}$  millim.), buried in the wood and irregularly arranged in groups of 6—10 or more, with their hemispheric-conic ostioli distinctly prominent and finally pierced with a small, round opening, but not radiate-sulcate; sporidia elliptical, pale brown, 1—2-nucleate, uniseriate, 5—6 x 2 $\frac{1}{2}$ —3  $\mu$ . Much resembles *A. melanotes*, B. & Br., but readily distinguished by its much smaller sporidia. We have not seen *Sphaeria polynesia*, B. & C., but as far as we can judge from the brief description of that species, this is different.

*ANTHOSTOMELLA MINOR*, E. & E.—On petioles of *Sabal serrulata*, Florida. W. W. Calkins, No. 746. Perithecia scattered, one third millim. in diam., subglobose, with the upper part subconic and prominent, with a rather acute, papilliform ostiolum; asci linear, 65—75 x 5  $\mu$ ; sporidia uniseriate, opaque; 2—3-nucleate, subinequilateral, 7—8 x 2 $\frac{1}{2}$ —3  $\mu$ . The surface of the matrix, in the specimens seen, was covered with a thin black crust, but whether this has any connection with the perithecia, we could not say.

ANTHOSTOMELLA MELANOSTICTA, E. & E.—On dead leaves of *Sabal Palmetto*, Louisiana, December, 1886. Langlois, No. 830. Perithecia gregarious or scattered, buried in the parenchyma of the leaf with their black, dot-like ostiola barely projecting through the epidermis, which is not at all blackened or discolored; asci 80—110 x 12—15  $\mu$ ; sporidia subbiseriate, elongated-elliptical and subinequilateral, brown, continuous 19—22 x 7—9  $\mu$ ; with a thin, hyaline envelope at first.

LEPTOSPHERIA FRAXINI, E. & E.—On living leaves of *Fraxinus Americana*, Columbia, Mo., August, 1886. B. T. Galloway, No. 125. Spots amphigenous, rusty below, dirty white above, with a rusty brown border, small, orbicular (1 millim.) or elongated, 2—3 millim. and narrow; perithecia black, epiphyllous, few, small (75  $\mu$ ), erumpent, indistinctly pierced above and with a rudimentary mycelium around the base; asci clavate-cylindrical, 55—70 x 8—10  $\mu$ ; sporidia biseriate, fusoid, somewhat curved, yellowish, nucleate, becoming 3—5-septate (mostly 4-septate), constricted at the middle septum when mature and sometimes slightly at the others, 20—25 x 3½—4  $\mu$ .

LOPHIOSTOMA EROSUM, E. & E.—On decaying wood of *Salix*, Vine-land, N. J. Perithecia buried in the substance of the wood, globose, ½—¾ millim. in diam.; ostiola erumpent, narrow, only slightly prominent; asci clavate-cylindrical, 90—100 x 12—15  $\mu$ , with abundant filiform paraphyses; sporidia subbiseriate above, oblong-fusoid or subnavicular, about 5-septate, hyaline at first, then yellowish and finally nearly opaque, mostly 20—25 x 7—8  $\mu$ , with a shrivled appearance. The perithecia are greedily eaten out by a small beetle. Allied to *L. scelestum*, C. & E., but smaller sporidia. Differs from *L. macrostomoides*, DeNot, in its immersed and smaller perithecia and its somewhat smaller sporidia.

LOPHIOSTOMA LANGLOISII, E. & E.—On bark of decaying *Salix nigra* lying on damp ground, Point a' la Hache, La., December, 1886. Langlois, No. 902. Perithecia gregarious, subconic, three fourths millim. in diam., about half buried in the bark, the projecting part dull black, roughish, with a narrow, more or less compressed, prominent ostiolum; asci subcylindrical, 110—120 x 12—15  $\mu$ , with abundant paraphyses; sporidia mostly biseriate, fusoid, 3-septate and slightly constricted at the septa, brown, slightly curved, each cell with a large nucleus, 34—40 x 7—8  $\mu$ .

LOPHIOSTOMA (LOPHIOSPHERIA) RADICANS, E. & E.—On decorticated, decaying stems of *Rhus radicans*, Newfield, N. J., July, 1878. Perithecia scattered, small (one sixth millim.), buried in the wood, except the narrow, compressed, erumpent ostiolum; asci subcylindrical, 90—110 x 10—12  $\mu$  (spore-bearing part 75—80  $\mu$  long), surrounded and overtopped by abundant, thread-like paraphyses; sporidia biseriate, fusiform, 3 septate, hyaline, slightly curved and mostly constricted at the middle septum, 15—20 x 4—5  $\mu$ .

LINOSPORA PALMETTO, E. & E.—On dead places in living leaves of *Sabal Palmetto*, Point a' la Hache, La., December, 1886. Langlois, No. 869. Perithecia globose, about one third millim. in diam., immersed, with the papillose ostiolum erumpent and included in a superficial, depressed-conic, cap-like stroma nearly as broad as the perithecia and around which the epidermis of the leaf is blackened as is also the parenchyma of the leaf around the perithecia; asci lanceolate,  $75-80 \times 8-10 \mu$ , with abundant paraphyses; sporidia eight in an ascus, linear fusoid, yellowish nucleate, acute,  $40-50 \times 2-2\frac{1}{2} \mu$ . The perithecia are mostly in subelongated spots of a paler color than the surrounding part of the leaf.

SPHÆRELLA SERRULATA, E. & E.—On dead stems of *Sabal serrulata*, Florida, January, 1887. W. W. Calkins. Perithecia minute, covered by the cuticle, which is blackened over them, rather prominent, with an acute, papilliform ostiolum, mostly collected in groups of 6—12 or arranged in a seriate manner; asci oblong-lanceolate,  $35 \times 7-8 \mu$ ; sporidia biseriate, oblong-fusoid, 2-nucleate, hyaline,  $6-8 \times 2\frac{1}{2} \mu$ , ends rather obtuse. Differs from *S. sabaligena*, E. & E., in its smaller, grouped perithecia and in its smaller sporidia without septa

SPHÆRELLA ROSIGENA, E. & E.—On living leaves of cultivated roses, Louisiana. Langlois, No. 689. Maculicola; spots amphigenous, reddish-brown, with a purplish border, definite, 3—4 millim. in diam.; perithecia epiphyllous, thickly scattered over the spots, minute ( $60-75 \mu$ ), partly erumpent, subastomous, black; asci subclavate-oblong,  $25-30 \times 8-10 \mu$ ; sporidia biseriate, clavate-oblong, hyaline, 1-septate,  $10-12 \times 2 \mu$ , ends subacute. Not to be confounded with *Sphærella (Læstadia) Rosæ*, Auersw.

SPHÆRELLA SICYICOLA, E. & E.—On living leaves of *Sicyos angulata*, Missouri. B. T. Galloway, No. 51. Spots amphigenous, small (1—2 millim.), dirty white, suborbicular or partly limited by the veinlets of the leaf, thin and transparent in the center; perithecia few, 1—3, often only one in the center of a spot, epiphyllous, black and subshining, about  $100 \mu$  in diam., sublenticular, with a rather broad preformation above, structure coarsely cellular; asci cylindrical-oblong,  $40-50 \times 6-7 \mu$ , sessile; sporidia biseriate, ovate-oblong, hyaline, uniseptate and somewhat constricted,  $8-11 \times 3\frac{1}{2} \mu$ , ends rounded or subacute.

We have received from Mr. Commons, Delaware, specimens of what must be the *Sphæria Zizaniæ*, Schw., Syn. N. Am., 1750. On languishing leaves of *Zizania aquatica*. Perithecia immersed and quite evenly scattered, nor seriate; asci oblong-cylindrical, turgid,  $45-55 \times 10-12 \mu$ ; sporidia biseriate, clavate-oblong, 1-septate and constricted, hyaline, straight or slightly curved,  $15-20 \times 5-6 \mu$ . The species belongs in *Sphærella*. The specimens of *Sphæria Zizaniæ*, Schw., in Herb. Schw., are sterile and poor, but the Delaware specimens appear to be that species.